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A. Pavlovska, K. Starbova, N. Starbov and E. Bauer, Impurity-induced faceting of Pb surfaces 418 (1998) 122

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M.J. Pilling, P. Gardner, M.E. Pemble and M. Surman, A far-infrared RAIRS investigation of $SnCl_4$ on a silica surface using the buried metal layer approach 418 (1998) L1

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R. Cavicchi, V. Sukharev and S. Semancik, Time-dependent conductance of Pd-dosed $SnO_2$ (110) 418 (1998) L81

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N. Chen, P. Blowers, R.I. Masel, Evidence for carbocation formation during the coadsorption of methanol and hydrogen on Pt(110) 418 (1998) 329

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C. Schwennicke, X.-S. Wang, T.L. Einstein and E.D. Williams, Evolution of surface morphology of vicinal Si(111) surfaces after aluminum deposition 418 (1998) 22

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L. Diederich, O.M. Küttel, P. Aebi and L. Schlapbach, Electron affinity and work function of differently oriented and doped diamond surfaces determined by photoelectron spectroscopy 418 (1998) 219

Y.D. Kim, S. Wendt, S. Schwegmann, H. Over and G. Ertl, Structural analyses of the pure and cesiated Ru(0001)-(2 × 2)-3O phase 418 (1998) 267

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A. Fedorus and E. Bauer, Structure and stability of metastable transition metal clusters on W(011) 418 (1998) 420

I. Zasada, M.A. Van Hove and G.A. Somorjai, Reanalysis of the Rh(111) + (2 × 2)-3NO structure using automated tensor LEED 418 (1998) L89

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J.M. McCoy, U. Korte and P.A. Maksym, Determination of the atomic geometry of the GaAs(001)2 × 4 surface by dynamical RHEED intensity analysis: The β2(2 × 4) model 418 (1998) 273

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***Low energy ion scattering (LEIS)***

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L.A. Okada, A.C. Dillon, A.W. Ott and S.M. George, Adsorption and decomposition of 1,4-disilabutane ($SiH_3CH_2CH_2SiH_3$) on Si(100)2 × 1 and porous silicon surfaces 418 (1998) 353

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B. Müller, T. Kuhlmann, K. Lischka, H. Schwer, R. Resel and G. Leising, MBE growth of *para*-hexaphenyl on GaAs(001)-2 × 4 418 (1998) 256

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P. Bond, P.N. Brier, J. Fletcher, W.J. Jia, H. Price and P.A. Gorry, Reactive scattering study of etching dynamics: $Cl_2$ on GaAs(100) 418 (1998) 181

**Molecule–solid scattering and diffraction – inelastic**

P. Bond, P.N. Brier, J. Fletcher, W.J. Jia, H. Price and P.A. Gorry, Reactive scattering study of etching dynamics: $Cl_2$ on GaAs(100) 418 (1998) 181

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B. Bourguignon, S. Carrez, B. Dragnea and H. Dubost, Vibrational spectroscopy of imperfect CO/Pd(111) surfaces obtained by adsorption between 150 and 230 K 418 (1998) 171

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L. Diederich, O.M. Küttel, P. Aebi and L. Schlapbach, Electron affinity and work function of differently oriented and doped diamond surfaces determined by photoelectron spectroscopy 418 (1998) 219

D. Schlatterbeck, M. Parschau and K. Christmann, Silver films grown on a rhenium (0001) surface: a combined TDS, XPS, and $\Delta\Phi$ study 418 (1998) 240

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M. Wiklund, A. Jaworowski, F. Strisland, A. Beutler, A. Sandell, R. Nyholm, S.L. Sorensen and J.N. Andersen, Vibrational fine structure in the C 1s photoemission spectrum of the methoxy species chemisorbed on Cu(100) 418 (1998) 210

***X-ray photoelectron spectroscopy***

D. Schlatterbeck, M. Parschau and K. Christmann, Silver films grown on a rhenium (0001) surface: a combined TDS, XPS, and $\Delta\Phi$ study 418 (1998) 240

H.H. Huang, X. Jiang, H.L. Siew, W.S. Chin and G.Q. Xu, Oxygen coadsorption and reaction with potassium on MgO thin films grown on Ru(001) 418 (1998) 320

D.Y. Zemlyanov, E. Savinova, A. Scheybal, K. Doblhofer and R. Schlögl, XPS observation of OH groups incorporated in an Ag(111) electrode 418 (1998) 441

J. Lahtinen, J. Vaari and K. Kauraala, Adsorption and structure dependent desorption of CO on Co(0001) 418 (1998) 502

P.J. Knight, R. Toomes, S.M. Driver and D.P. Woodruff, Oxidation of the Cu(100)c(2 × 2)-Mn surface: epitaxial manganese oxide 418 (1998) 521

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T. Jirsak, J.A. Rodriguez, S. Chaturvedi and J. Hrbek, Chemistry of $SO_2$ on Ru(001): formation of $SO_3$ and $SO_4$ 418 (1998) 8

W.-H. Hung, J.-T. Hsieh, H.-L. Hwang, H.-Y. Hwang and C.-C. Chang, Surface etching of InP(100) by chlorine 418 (1998) 46

T.-W. Pi, C.-P. Cheng and I.-H. Hong, Si 2p core level spectroscopy in Si(001)2 × 1: the charge-transfer effect 418 (1998) 113

M. Wiklund, A. Jaworowski, F. Strisland, A. Beutler, A. Sandell, R. Nyholm, S.L. Sorensen and J.N. Andersen, Vibrational fine structure in the C 1s photoemission spectrum of the methoxy species chemisorbed on Cu(100) 418 (1998) 210

A. Beutler, A. Sandell, A.J. Jaworowski, M. Wiklund, R. Nyholm and J.N. Andersen, The influence of preadsorbed oxygen on the adsorption of CO on two-dimensional Pd islands on a Rh(111) surface 418 (1998) 457

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K.T. Queeney, C.R. Arumainayagam, A. Balaji and C.M. Friend, Carbon–carbon coupling from formaldehyde reaction on Mo(110) 418 (1998) L31

***Infrared absorption spectroscopy***

J.W. Klaus, A.W. Ott, A.C. Dillon and S.M. George, Atomic layer controlled growth of $Si_3N_4$ films using sequential surface reactions 418 (1998) L14

K.T. Queeney, C.R. Arumainayagam, A. Balaji and C.M. Friend, Carbon–carbon coupling from formaldehyde reaction on Mo(110) 418 (1998) L31

B. Bourguignon, S. Carrez, B. Dragnea and H. Dubost, Vibrational spectroscopy of imperfect CO/Pd(111) surfaces obtained by adsorption between 150 and 230 K 418 (1998) 171

L.A. Okada, A.C. Dillon, A.W. Ott and S.M. George, Adsorption and decomposition of 1,4-disilabutane ($SiH_3CH_2CH_2SiH_3$) on Si(100)2 × 1 and porous silicon surfaces 418 (1998) 353

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**Reflection spectroscopy**

M.J. Pilling, P. Gardner, M.E. Pemble and M. Surman, A far-infrared RAIRS investigation of $SnCl_4$ on a silica surface using the buried metal layer approach 418 (1998) L1

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P. Stone, S. Poulston, R.A. Bennett, N.J. Price and M. Bowker, An STM, TPD and XPS investigation of formic acid adsorption on the oxygen-precovered $c(6 \times 2)$ surface of Cu(110) 418 (1998) 71
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I.S. Tilinin, M.K. Rose, J.C. Dunphy, M. Salmeron and M.A. Van Hove, Identification of adatoms on metal surfaces by STM: experiment and theory 418 (1998) 511
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R.-M. Rummel and C. Ziegler, Room temperature adsorption of aniline ($C_6H_5NH_2$) on Si(100)(2 × 1) observed with scanning tunneling microscopy 418 (1998) 303

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L.A. Okada, A.C. Dillon, A.W. Ott and S.M. George, Adsorption and decomposition of 1,4-disilabutane ($SiH_3CH_2CH_2SiH_3$) on Si(100)2 × 1 and porous silicon surfaces 418 (1998) 353
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M.C. Saint-Lager, R. Baudoing-Savois, M. De Santis, P. Dolle and Y. Gauthier, Thickness effect on alloying of ultrathin Co films on Pt(111): a real time and in situ UHV study with synchrotron X-ray diffraction 418 (1998) 485

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D. Welipitiya, C. Waldfried, C.N. Borca, P.A. Dowben, N.M. Boag, H. Jiang, I. Gobulukoglu and B.W. Robertson, The adsorption of nickelocene. Part 2: decomposition and selective area deposition 418 (1998) 466

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P. Stone, S. Poulston, R.A. Bennett, N.J. Price and M. Bowker, An STM, TPD and XPS investigation of formic acid adsorption on the oxygen-precovered $c(6 \times 2)$ surface of Cu(110) 418 (1998) 71

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T. Bredov, E. Aprà, M. Catti and G. Pacchioni, Cluster and periodic ab-initio calculations on $K/TiO_2(110)$ 418 (1998) 150
B. Bourguignon, S. Carrez, B. Dragnea and H. Dubost, Vibrational spectroscopy of imperfect CO/Pd(111) surfaces obtained by adsorption between 150 and 230 K 418 (1998) 171
P. Bond, P.N. Brier, J. Fletcher, W.J. Jia, H. Price and P.A. Gorry, Reactive scattering study of etching dynamics: $Cl_2$ on GaAs(100) 418 (1998) 181
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Y.D. Kim, S. Wendt, S. Schwegmann, H. Over and G. Ertl, Structural analyses of the pure and cesiated Ru(0001)–$(2 \times 2)$-3O phase 418 (1998) 267
R.-M. Rummel and C. Ziegler, Room temperature adsorption of aniline ($C_6H_5NH_2$) on Si(100)$(2 \times 1)$ observed with scanning tunneling microscopy 418 (1998) 303
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E.E. Mola, V.A. Ranea and J.L. Vicente, Underlayer chemisorption of C on Al(111) 418 (1998) 367
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C. Schwennicke, X.-S. Wang, T.L. Einstein and E.D. Williams, Evolution of surface morphology of vicinal Si(111) surfaces after aluminum deposition 418 (1998) 22
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D. Schlatterbeck, M. Parschau and K. Christmann, Silver films grown on a rhenium (0001) surface: a combined TDS, XPS, and $\Delta\Phi$ study 418 (1998) 240
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A. Pavlovska, K. Starbova, N. Starbov and E. Bauer, Impurity-induced faceting of Pb surfaces 418 (1998) 122

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R. Akiyama, T. Matsumoto and T. Kawai, Dipole-controlled manipulation of DNA base molecules 418 (1998) L73

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J.W. Klaus, A.W. Ott, A.C. Dillon and S.M. George, Atomic layer controlled growth of $Si_3N_4$ films using sequential surface reactions 418 (1998) L14

R.H. Miwa, Theoretical study of Si–Ge mixed dimers on Si(001) surfaces 418 (1998) 55

D. Schlatterbeck, M. Parschau and K. Christmann, Silver films grown on a rhenium (0001) surface: a combined TDS, XPS, and $\Delta\Phi$ study 418 (1998) 240

T. Fujita and K. Tanaka, Controlled epitaxial growth of Cu and Ni islands on oxygen-preadsorbed Cu(100) surfaces 418 (1998) L45

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B. Müller, T. Kuhlmann, K. Lischka, H. Schwer, R. Resel and G. Leising, MBE growth of *para*-hexaphenyl on GaAs(001)-2 × 4 418 (1998) 256

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H.H. Huang, X. Jiang, H.L. Siew, W.S. Chin and G.Q. Xu, Oxygen coadsorption and reaction with potassium on MgO thin films grown on Ru(001) 418 (1998) 320

P.J. Knight, R. Toomes, S.M. Driver and D.P. Woodruff, Oxidation of the Cu(100)c(2 × 2)-Mn surface: epitaxial manganese oxide 418 (1998) 521

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P. Bond, P.N. Brier, J. Fletcher, W.J. Jia, H. Price and P.A. Gorry, Reactive scattering study of etching dynamics: $Cl_2$ on GaAs(100) 418 (1998) 181

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S. Ramalingam, D. Maroudas, E.S. Aydil and S.P. Walch, Abstraction of hydrogen by $SiH_3$ from hydrogen-terminated Si(001)-(2 × 2) surfaces 418 (1998) L8

J.W. Klaus, A.W. Ott, A.C. Dillon and S.M. George, Atomic layer controlled growth of $Si_3N_4$ films using sequential surface reactions 418 (1998) L14

Th. Zecho, B. Brandner and J. Küppers, Abstraction of D adsorbed on Pt(100) surfaces by gaseous H atoms: effect of surface heterogeneity 418 (1998) L26

K.T. Queeney, C.R. Arumainayagam, A. Balaji and C.M. Friend, Carbon–carbon coupling from formaldehyde reaction on Mo(110) 418 (1998) L31

W.A. Diño, H. Kasai and A. Okiji, Dynamical quantum filtering in hydrogen–surface reactions 418 (1998) L39

P. Stone, S. Poulston, R.A. Bennett, N.J. Price and M. Bowker, An STM, TPD and XPS investigation of formic acid adsorption on the oxygen-precovered $c(6 \times 2)$ surface of Cu(110) 418 (1998) 71

G. Zhuang, Y. Chen and P.N. Ross, Jr., The reaction of lithium with carbon dioxide studied by photoelectron spectroscopy 418 (1998) 139

P. Bond, P.N. Brier, J. Fletcher, W.J. Jia, H. Price and P.A. Gorry, Reactive scattering study of etching dynamics: $Cl_2$ on GaAs(100) 418 (1998) 181

Y.D. Kim, S. Wendt, S. Schwegmann, H. Over and G. Ertl, Structural analyses of the pure and cesiated Ru(0001)-(2 × 2)-3O phase 418 (1998) 267

L.A. Okada, A.C. Dillon, A.W. Ott and S.M. George, Adsorption and decomposition of 1,4-disilabutane ($SiH_3CH_2CH_2SiH_3$) on Si(100)2 × 1 and porous silicon surfaces 418 (1998) 353

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T.-W. Pi, C.-P. Cheng and I.-H. Hong, Si 2p core level spectroscopy in Si(001)2 × 1: the charge-transfer effect 418 (1998) 113

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J. Padilla and D. Vanderbilt, Ab initio study of $SrTiO_3$ surfaces 418 (1998) 64
Q. Ge, D.A. King, N. Marzari and M.C. Payne, First principles calculation of the energy and structure of two solid surface phases on Ir{100} 418 (1998) 529

**Surface relaxation and reconstruction**

D. Grozea, E. Landree, L.D. Marks, R. Feidenhans'l, M. Nielsen and R.L. Johnson, Direct methods determination of the Si(111)-(6 × 6)Au surface structure 418 (1998) 32
J. Padilla and D. Vanderbilt, Ab initio study of $SrTiO_3$ surfaces 418 (1998) 64
D. Zhao and D. Haneman, LEED structures in Si(111) surfaces quenched from elevated-temperature cleavages 418 (1998) 132
J.-K. Hansen, J. Bremer and O. Hunderi, The electronic structure of Cu(110) and Ag(110) surfaces studied by reflection anisotropy spectroscopy 418 (1998) L58
P.C. Kelires, Theoretical investigation of the equilibrium surface structure of $Si_{1-x-y}Ge_xC_y$ alloys 418 (1998) L62
C. Collazo-Davila, D. Grozea, L.D. Marks, R. Feidenhans'l, M. Nielsen, L. Seehofer, L. Lottermoser, G. Falkenberg, R.L. Johnson, M. Göthelid and U. Karlsson, Solution of Ge(111)-(4 × 4)-Ag structure using direct methods applied to X-ray diffraction data 418 (1998) 395

**Surface roughening**

V.P. Zhdanov and B. Kasemo, Non-thermal surface roughening in catalytic reactions 418 (1998) 84

**Surface segregation**

L. Rubinovich and M. Polak, On the surface composition of intermetallic compounds: the case of $MgNi_2$ 418 (1998) L53
P.C. Kelires, Theoretical investigation of the equilibrium surface structure of $Si_{1-x-y}Ge_xC_y$ alloys 418 (1998) L62

**Surface structure, morphology, roughness, and topography**

C. Schwennicke, X.-S. Wang, T.L. Einstein and E.D. Williams, Evolution of surface morphology of vicinal Si(111) surfaces after aluminum deposition 418 (1998) 22
P. Stone, S. Poulston, R.A. Bennett, N.J. Price and M. Bowker, An STM, TPD and XPS investigation of formic acid adsorption on the oxygen-precovered $c(6 \times 2)$ surface of Cu(110) 418 (1998) 71
L. Diederich, O.M. Küttel, P. Aebi and L. Schlapbach, Electron affinity and work function of differently oriented and doped diamond surfaces determined by photoelectron spectroscopy 418 (1998) 219
B. Müller, T. Kuhlmann, K. Lischka, H. Schwer, R. Resel and G. Leising, MBE growth of *para*-hexaphenyl on GaAs(001)-2 × 4 418 (1998) 256
Y.D. Kim, S. Wendt, S. Schwegmann, H. Over and G. Ertl, Structural analyses of the pure and cesiated Ru(0001)-(2 × 2)-3O phase 418 (1998) 267
J.M. McCoy, U. Korte and P.A. Maksym, Determination of the atomic geometry of the GaAs(001)2 × 4 surface by dynamical RHEED intensity analysis: The β2(2 × 4) model 418 (1998) 273
H.L. Meyerheim, M. De Santis, W. Moritz and I.K. Robinson, Domain-wall interactions in Bi/Cu(001) 418 (1998) 295
A. Fedorus and E. Bauer, Structure and stability of metastable transition metal clusters on W(011) 418 (1998) 420
J. Lahtinen, J. Vaari and K. Kauraala, Adsorption and structure dependent desorption of CO on Co(0001) 418 (1998) 502
Q. Ge, D.A. King, N. Marzari and M.C. Payne, First principles calculation of the energy and structure of two solid surface phases on Ir{100} 418 (1998) 529

**Surface thermodynamics (including phase transitions)**

C. Schwennicke, X.-S. Wang, T.L. Einstein and E.D. Williams, Evolution of surface morphology of vicinal Si(111) surfaces after aluminum deposition 418 (1998) 22
M.C. Saint-Lager, R. Baudoing-Savois, M. De Santis, P. Dolle and Y. Gauthier, Thickness effect on alloying of ultrathin Co films on Pt(111): a real time and in situ UHV study with synchrotron X-ray diffraction 418 (1998) 485

**Surface waves**

***Acoustic waves***

T. Mitrelias, Acoustic excitation influence on the oscillatory CO oxidation reaction over a Pt{110} crystal 418 (1998) 105

***Plasmons***

R. Pechou, R. Coratger, F. Ajustron and J. Beauvillain, Control of light emission from an STM and surface modifications 418 (1998) 1

**Thermal desorption**

P. Stone, S. Poulston, R.A. Bennett, N.J. Price and M. Bowker, An STM, TPD and XPS investigation of formic acid adsorption on the oxygen-precovered $c(6 \times 2)$ surface of Cu(110) 418 (1998) 71
D. Schlatterbeck, M. Parschau and K. Christmann, Silver films grown on a rhenium (0001) surface: a combined TDS, XPS, and $\Delta\Phi$ study 418 (1998) 240
W.T. Lee, F. Thomas and R.I. Masel, Methanol oxidation on (2 × 1)Pt(110): does the C–O or O–H bond break first? 418 (1998) 479

**Tribology**

P.B. Merrill and S.S. Perry, Fundamental measurements of the friction of clean and oxygen-covered VC(100) with ultrahigh vacuum atomic force microscopy: evidence for electronic contributions to interfacial friction 418 (1998) 342

**Tunneling**

R. Strohmaier, J. Petersen, B. Gompf and W. Eisenmenger, A systematic STM study of planar aromatic molecules on inorganic substrates. I. Submolecular image contrast 418 (1998) 91

**Vibrations of adsorbed molecules**

M. Wiklund, A. Jaworowski, F. Strisland, A. Beutler, A. Sandell, R. Nyholm, S.L. Sorensen and J.N. Andersen, Vibrational fine structure in the C 1s photoemission spectrum of the methoxy species chemisorbed on Cu(100) 418 (1998) 210

B.G. Frederick, T. Hildebrand, C.C. Perry, Q. Chen, A.W. Munz, Th. Bertrams, V. Zielasek, N.V. Richardson and M. Henzler, Inelastic diffraction in coadsorbed periodic structures 418 (1998) 407